NEC

Versa M440

Packard Bell.

EasyNote H5

Disassembly Manual

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Overview

This document contains step-by-steps disassembly instructions for the Versa M440/EasyNote H5 chassis. The instructions are illustrated where necessary with images of the part that is being removed or disassembled. Furthermore, the screws that are removed are shown next to the image of the parts themselves.

NEC reserves the right to make changes to the Versa M440/EasyNote H5 chassis without notice.

Technician Notes

Only technicians authorized by NEC Computers International BV should attempt to repair this equipment. All troubleshooting and repair procedures are detailed to allow only subassembly/module level repair. Because of the complexity of the individual boards and subassemblies, no one should attempt to make repairs at the component level or to make modifications to any printed wiring board. Improper repairs can create a safety hazard. Any indication of component replacement or printed wiring board modifications may void any warranty or exchange allowances.

Disassembly Instructions

When disassembling the system unit, follow these general rules:

- Do not disassemble the system into parts that are smaller than those specified in the instructions.
- Label all removed connectors. Note where the connector goes and in what position it was installed.
- Turn off the power and disconnect all power and all options.

Reassembly Instructions

Reassembly is the reverse of the disassembly process. Use care to ensure that all cables and screws are returned to their proper positions. Check that no tools or any loose parts have been left inside the chassis. Check that everything are properly installed and tightened.

Required Tools

All disassembly procedures can be perform using the following tools:

- PH 0x60 Philips screwdriver
- PH 0x40 Philips screwdriver
- 4.0 x 60 Flat screwdriver
- 2.0 x 30 Flat screwdriver
- SW5.0 Spacer screwdriver
- Small tweezers
- Pin

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Hazardous Voltage

There is hazardous voltage present inside the computer when it is connect to an AC supply, even when the computer's power switch is off. Exposure to hazardous voltage could cause personal injury. To avoid risk of injury, contact an Authorized Service Provider for proper (UN)installation of optional hardware devices.

Avoid Electrostatic Discharge

Electrostatic electricity can easily damage circuit cards and integrated circuits (ICs). To reduce risk of damage, store them in protective packaging whenever they are not installed in your system.

Add-in cards can be extremely sensitive to ESD and always require careful handling. After removing the card from the computer, place the card flat on a grounded, static-free surface, component-side up. Use a conductive foam pad if available, but not the card wrapper. Do not slide the card over any surface.

Before you install or remove memory modules, video memory, disk drives, circuit cards or other devices, protect them from static electricity. To do so, make sure your computer's power switch is OFF. Then, unplug the computer's AC power cord. Before picking up the device you (un)install, you should wear an anti-static wrist wrap (available at electronic supply stores). Be sure to connect the wrist wrap to an unpainted metal portion of the computer chassis. As an alternative, you can dissipate electrostatic build-up by touching an unpainted metal portion of the computer chassis with one hand. Then touch the device you are (un)installing with the other hand, and maintain continuous contact with it until it is (un)installed in the computer.

Power Supply Unit

Under no circumstances should you attempt to disassemble the power supply. The power supply contains no user-serviceable parts. Inside the power supply are hazardous voltages that can cause serious personal injury. Always return a defective power supply to your dealer.

WARNING
Ensure that the computer is disconnected from its power source and from all telecommunications links, networks, or modem lines whenever the chassis cover is removed. Do not operate the computer with the cover removed.

AVERTISSEMENT
Assurez-vous que le système est débranché de son alimentation ainsi que de toutes les liaisons de télécommunication, des réseaux, et des lignes de modem avant d'enlever le capot. Ne pas utiliser le système quand le capot est enlevé.

WARNUNG
Das System darf weder an eine Stromquelle angeschlossen sein noch eine Verbindung mit einer Telekommunikationseinrichtung, einem Netzwerk oder einer Modem-Leitung haben, wenn die Gehäuseabdeckung entfernt wird. Nehmen Sie das System nicht ohne die Abdeckung in Betrieb.

ADVERTENCIA
Asegúrese de que cada vez que se quite la cubierta del chasis, el sistema haya sido desconectado de la red de alimentación y de todos lo enlaces de telecomunicaciones, de red y de líneas de módem. No ponga en funcionamiento el sistema mientras la cubierta esté quitada.

WAARSCHUWING
Zorg er voor dat alle verbindingen van en naar de computer (stroom, modem netwerk, etc) verbroken worden voordat de behuizing geopend wordt. Zet de computer nooit aan als de behuizing geopend is.

AVVERTENZA
Prima di rimuovere il coperchio del telaio, assicurarsi che il sistema sia scollegato dall'alimentazione, da tutti i collegamenti di comunicazione, reti o linee di modem. Non avviare il sistema senza aver prima messo a posto il coperchio

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Removing the Battery

Perform the following steps to remove the battery:

1. Make sure to power off the Versa M440/EasyNote H5.
2. Turn the unit upside down.
3. Unscrews the bottom cover door and slide it out of its place as the arrow shows in Fig. 1
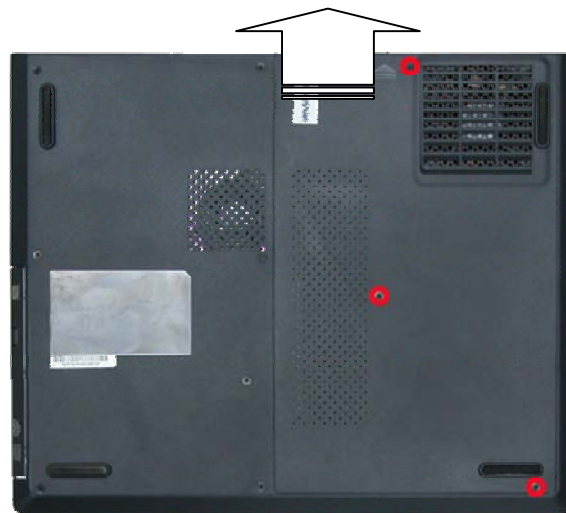

Fig. 1 *Removing Bottom cover door*

M2.5x7 Black

4. Pull up the battery as shows in Fig. 2

Fig. 2 *Pull up battery*

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Removing the Memory Module

To remove the Memory Module, first remove the battery (see *Removing the Battery*), then perform the following steps:

1. Unclip the memory module as shown in Fig. 3
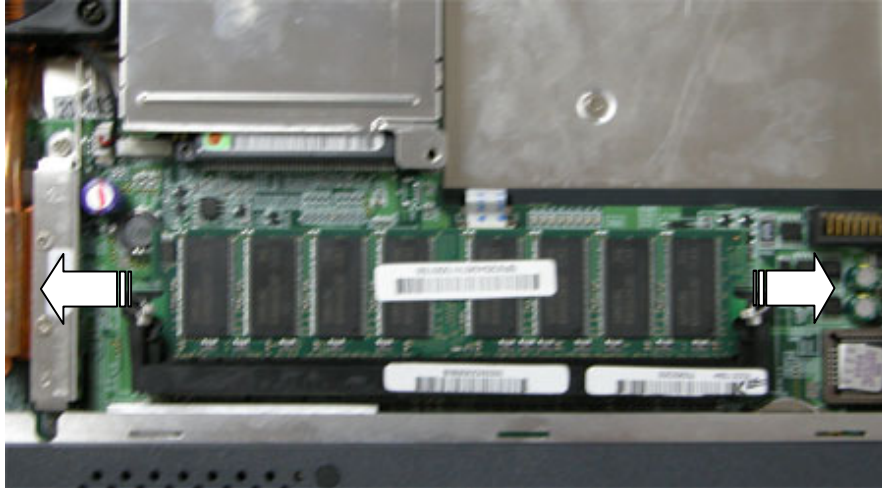
Fig. 3 *Removing the memory module*

2. Remove the memory module from its slot and put it aside.

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Removing the Hard Disk Drive

To remove the hard disk drive, first remove the battery (see *Removing the Battery*), then perform the following steps:

1. Remove the screws as shown in Fig. 4
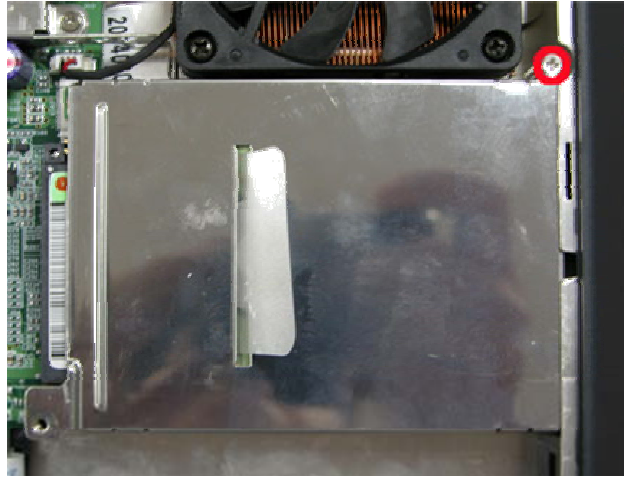
Fig. 4 *Screw retaining the HDD module*

M2.5x5 Silver

2. Carefully pull the HDD module out from the base unit as shown in Fig. 5 .
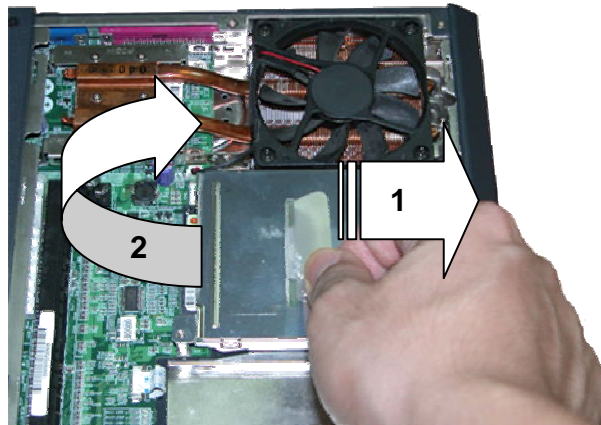
Fig. 5 *Removing HDD module*

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Removing the CPU

To remove the CPU first remove the battery (see *Removing the Battery*) then perform the following steps:

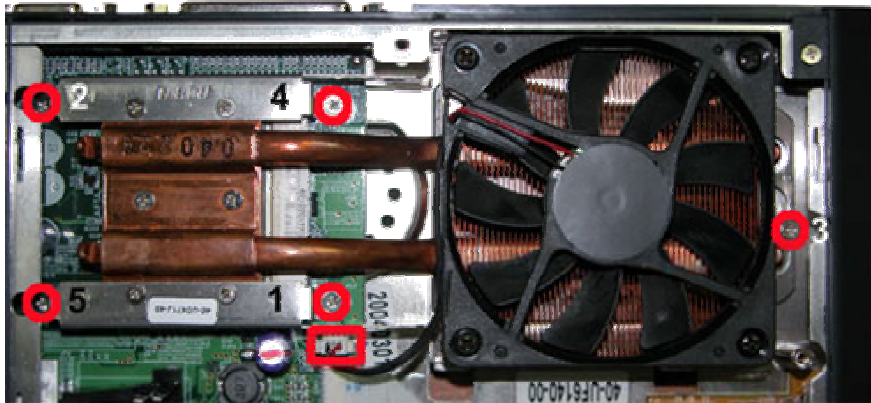1. Unscrew screws on CPU Heat Sink in descending order (5→4→3→2→1) as shown in Fig. 6

Fig. 6 CPU Heat Sink

M2.5x5 Silver

Note: Beware of screws use on the CPU heat sink! Ensure to use the screw size M2.5x5, otherwise it might cause damage to CPU die or Main Board. When install heat sink, screws must be secured in ascending order (1→2→3→4→5).

2. Unlock the CPU from the CPU socket and lift up the CPU carefully.
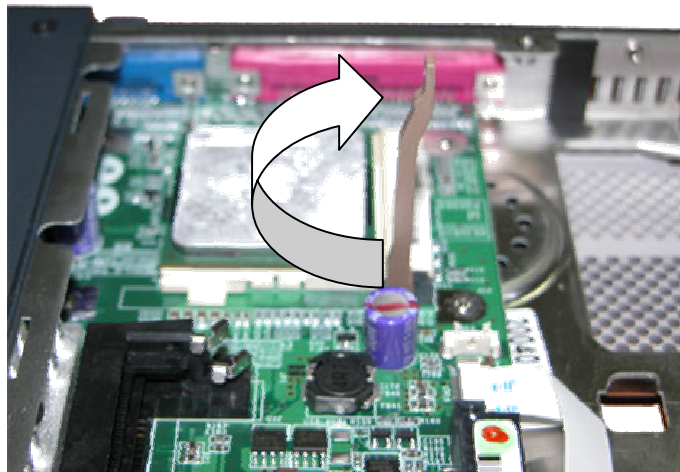

Fig. 7 Unlocking the CPU

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Removing the Keyboard

To remove the Keyboard, first remove the battery (see *Removing the Battery*), then perform the following steps:

1. Release the keyboard from the base unit by push KB lock with flat screws driver as shown in Fig. 8

Fig. 8 Releasing the keyboard cover

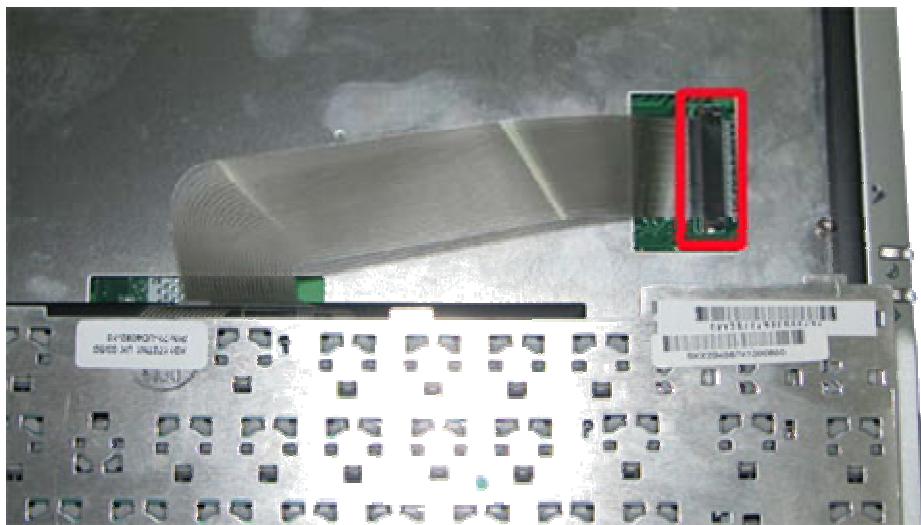2. Lift up the keyboard and disconnect it from the system as shown in Fig. 9

Fig. 9 Disconnecting the keyboard flat cable

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Removing the Optical Disk Drive

To remove the ODD, first remove the battery (see *Removing the Battery*) then perform the following steps:

1. Flip over the unit, unscrew and pull the ODD module out from the base unit as shown in Fig. 10

M2.5x7 Black

Fig. 10   Pushing the optical drive out from the base unit

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Removing the LCD Module

To remove the LCD Module first remove the battery (see *Removing the Battery*) and remove the Keyboard (see *Removing the Keyboard*) then perform the following steps:

1. Remove the hinge cover as shown in Fig. 11

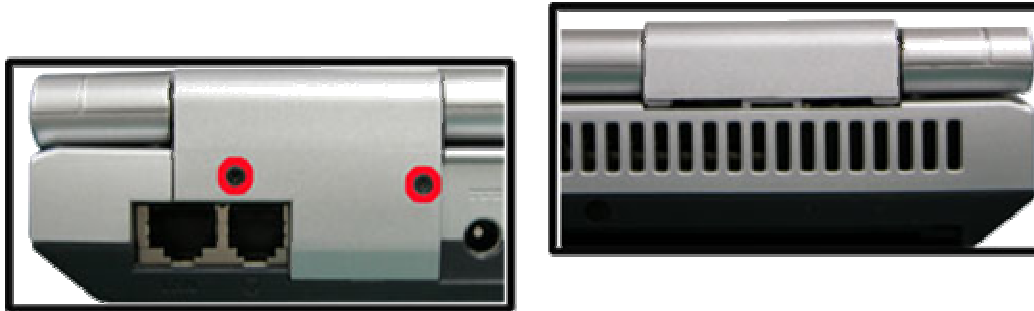**M2x3 Black**

Fig. 11   Removing the hinge cover
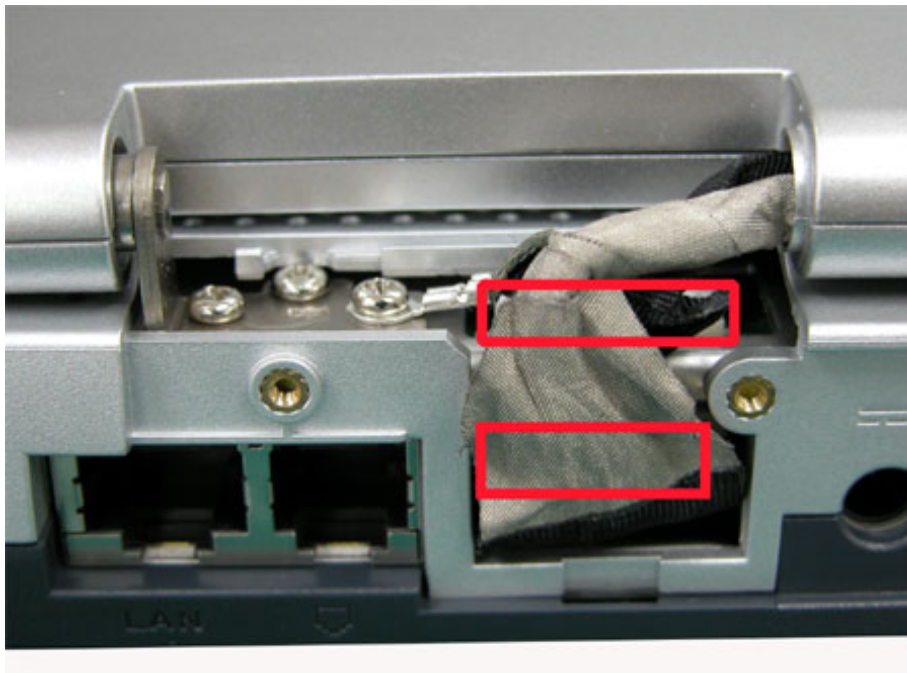
2. Disconnect LCD cable as shown in Fig. 12

Fig. 12   Disconnecting LCD Cable

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3. Release two screws at both side of LCD hinge, remain two outer screws attached.
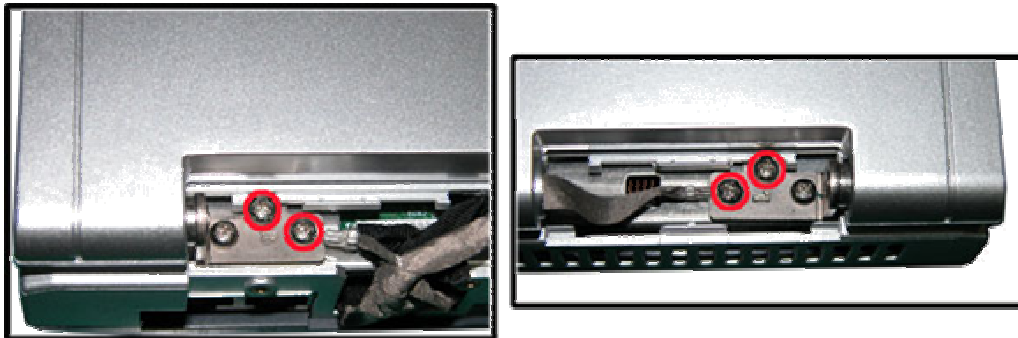

Fig. 13 *Removing screws at LCD hinge*

M2.5 x 7 Silver

4. Open up the LCD panel at 45° then remove two outer screws on LCD hinge.
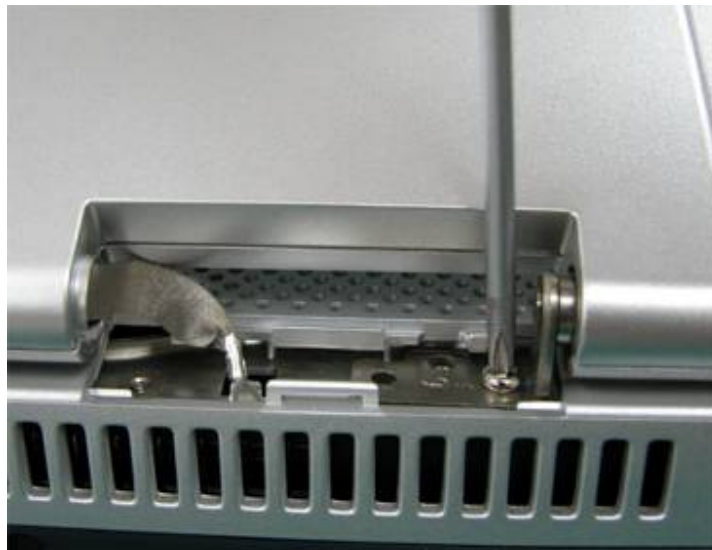
Fig. 14 *Removing outer screw at LCD hinge*

M2.5 x 7 Silver

5. Carefully separate the LCD Module from the base unit.

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Removing the LCD Panel

To remove the LCD panel, first remove the LCD module (see *Removing the LCD Module*), then perform the following steps:

1. Use a pin to remove the rubber cover on the LCD module as shown in Fig. 15
2. Remove all screws as shown in Fig. 15

A = M2.5x5 Silver

B = M2x6 Silver

Fig. 15   Removing the rubber covers & screws on the LCD Module

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3. Carefully release LCD Bezel form LCD module as shown in Fig. 16

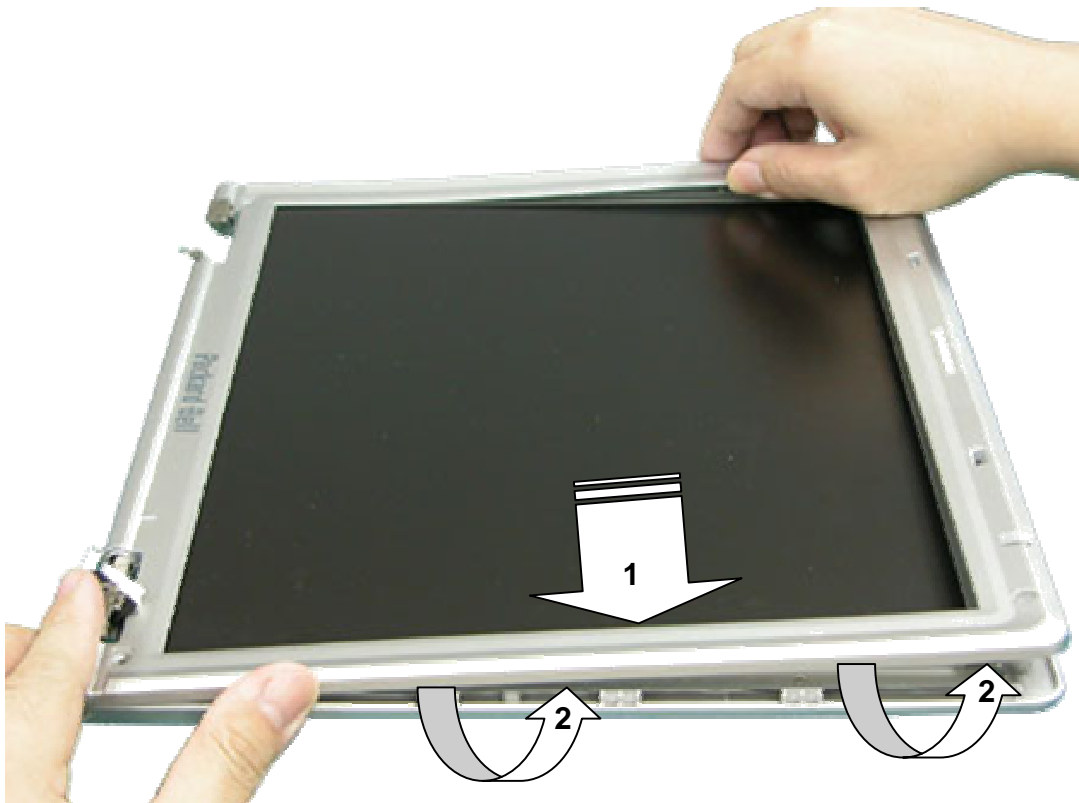*Fig. 16*   *Removing the LCD Bezel*

4. Release the inverter board by remove the screw and disconnect all connectors as shown in Fig. 17
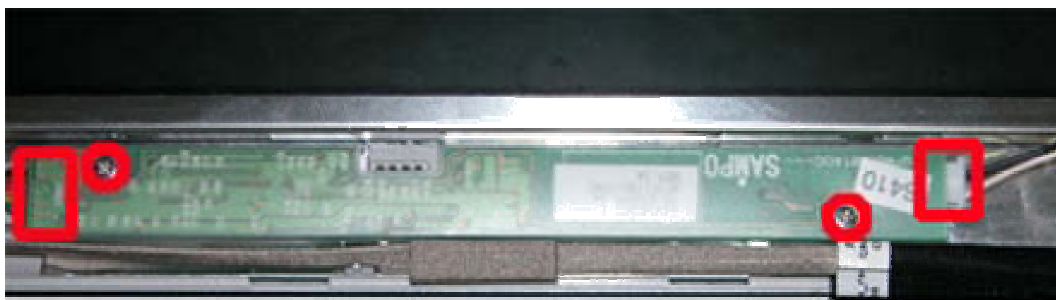

M2x5 Silver

Fig. 17   *Removing the Inverter Board*

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5. Release six screws at the side of the LCD Penal and two screws on LCD Hinge.

Fig. 18 *Removing the LCD Panel hinges*

A = M2x5 Silver

B = M2.5 x 5 Silver

6. Carefully lift up the LCD panel.
7. Remove the screws at both sides of the LCD panel in order to release the LCD hinges as shown in Fig. 19

Fig. 19 *Removing the LCD Panel hinges*

M2x3.5 Silver

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Removing the Bottom Cover

To remove the Top Cover , first remove the battery (see *Removing the Battery*), remove the Optical Disk Drive (see *Removing the Optical Disk Drive*) then perform the following steps:

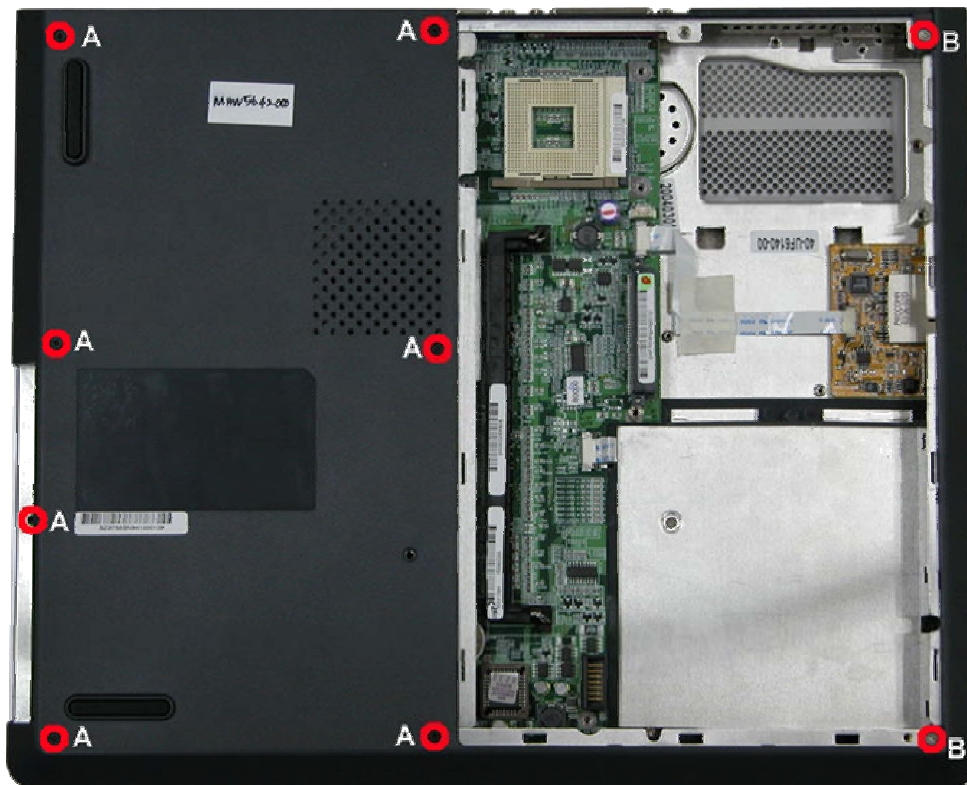1. Remove all screws on the bottom of the base unit as shown in Fig. 20

A = M2.5x7 Black

B = M2.5 x 5 Silver

Fig. 20   Bottom Cover

2. Locate and release two screws at the rear of Bottom cover as shown in Fig. 21 .

M2x3 Black

Fig. 21   Bottom cover

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3. Carefully lift up bottom cover from base unit as shown in Fig. 22 and place it aside.

Fig. 22 *Lifting up the Bottom cover*

Removing the MDC Modem

To remove the MDC Modem, first remove the Bottom Cover (see *Removing the Bottom Cover*)
then perform the following steps:

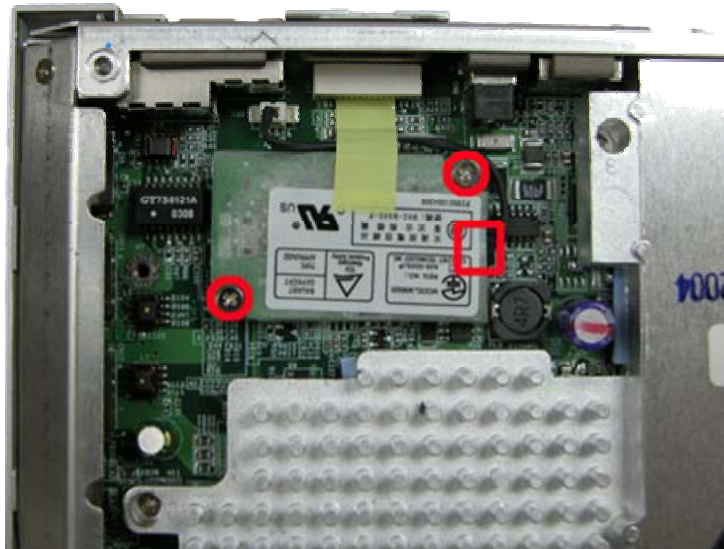1. Release screws and disconnect cable on MCD Modem as shown in Fig. 23

M2x4 Silver

Fig. 23 *MDC Modem*

2. Lift up the MDC modem and put it aside.

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Removing the Chipset Heat Sink

To remove the Chipset heat sink, first remove the Bottom cover (see *Removing the Bottom Cover*) then perform the following steps:

1. Unscrew the screws on the Chipset Heat sink in descending order (4→3→2→1) disconnect the fan connector as shown in Fig. 24
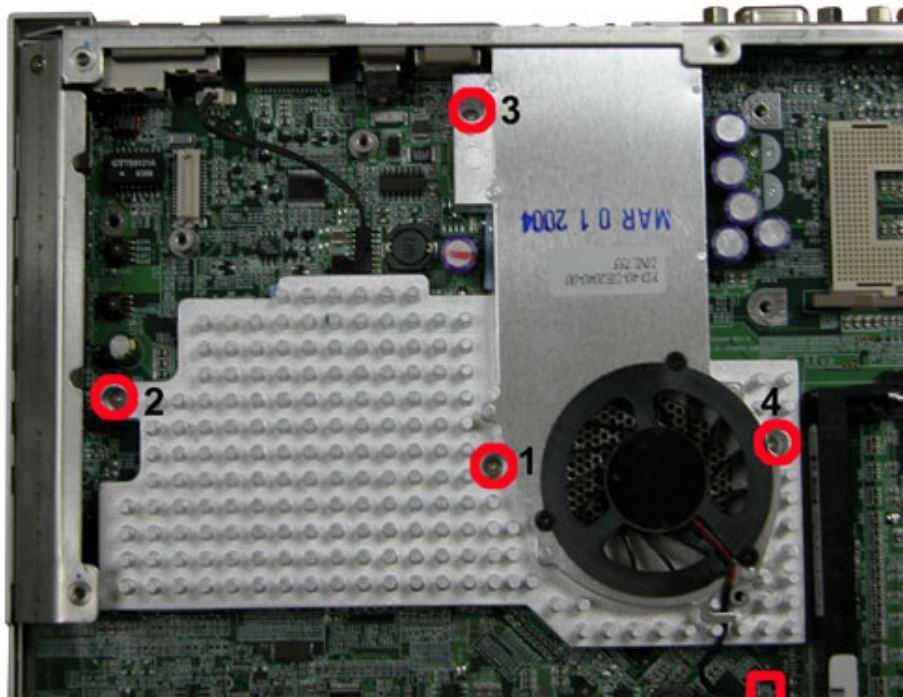

M2.5 x 5 Silver

Fig. 24 *Chipset Heat sink*

2. Carefully lift up heat sink from Main Board.

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Removing the Multi card reader

To remove the Multi card reader, first remove the Hard Disk Drive (see *Removing the Hard Disk Driver*) then perform the following steps:

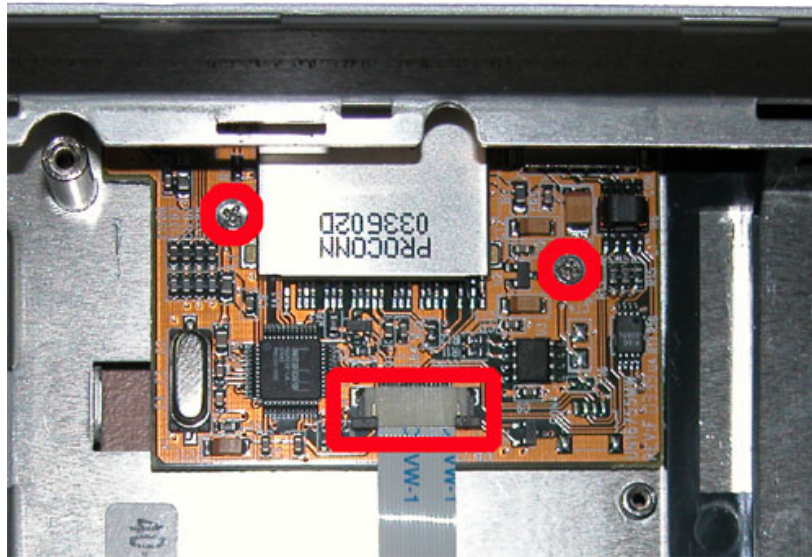1. Unscrew the screws on the Multi Card Reader and disconnect it as shown in Fig. 25

M2x4 Silver

Fig. 25 *Multi card Reader*

2. Carefully separate the Multi card Reader from Top cover.

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Removing the Main Board

To remove the Main Board, first remove the Bottom cover (see *Removing the Bottom Cover*) then perform the following steps:
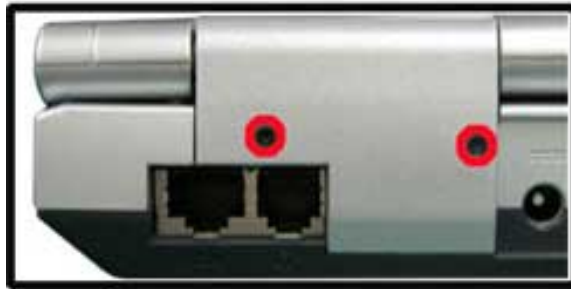
1. Remove the right hinge cover as shown in Fig. 26

M2x3 Black

Fig. 26 *Removing the right hinge cover*

2. Disconnect LCD cable as shown in Fig. 27
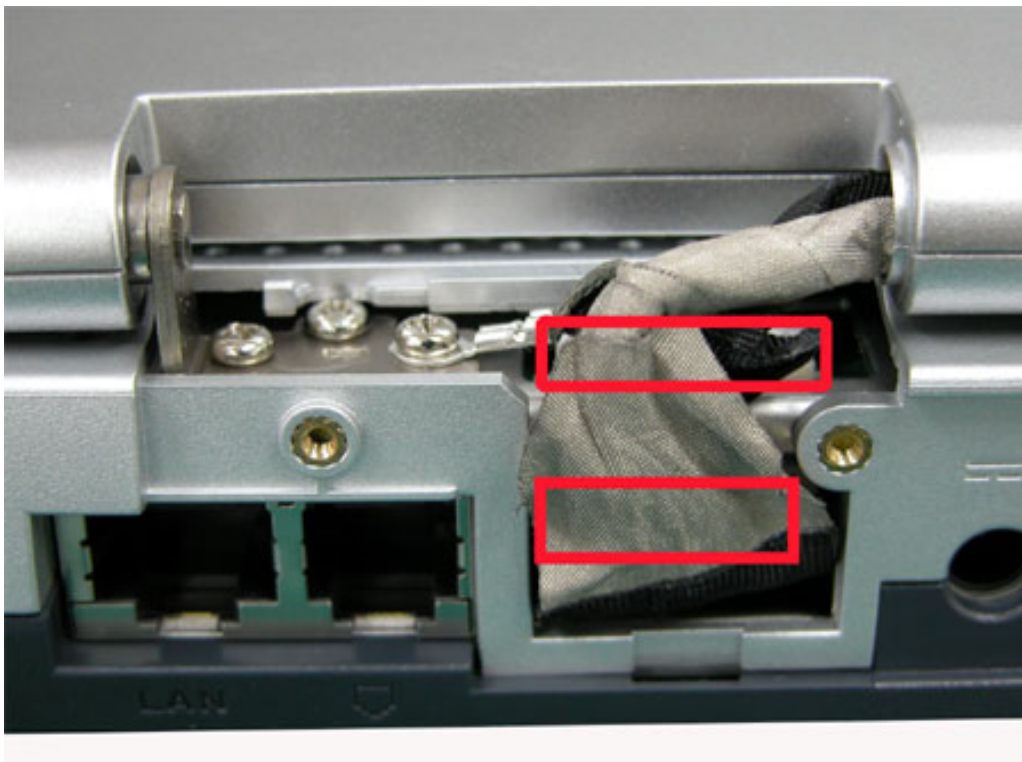
Fig. 27 *Disconnecting LCD Cable*

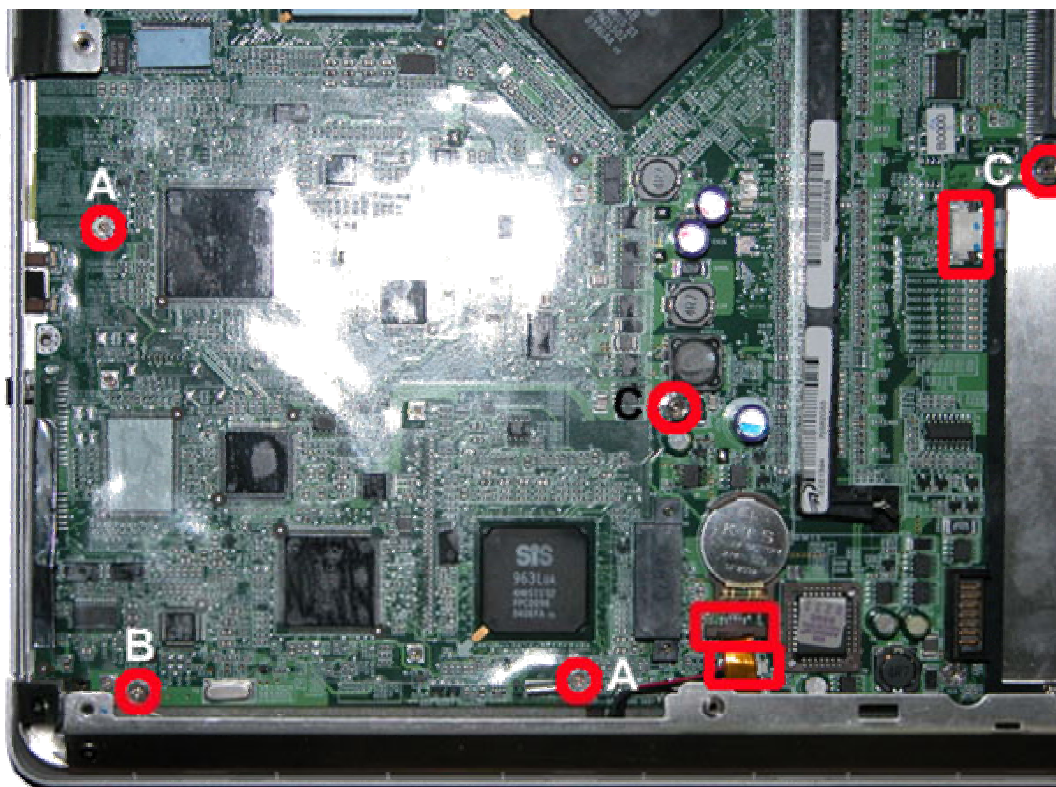3. Remove the Hex screws from the VGA Port as shown in Fig. 28

A = M2.5x6 Silver

B = M2.5x9 Silver

C = M2.5x19.5 Silver

Fig. 28 Main Board

4. Release Hex screws from VGA and Parallel Port

M2.5x10 Silver

Fig. 29 VGA & Parallel Port

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5. Pull the plastics part near to audio port outward to release Main Board and carefully lift up the Main Board as shown in Fig. 30
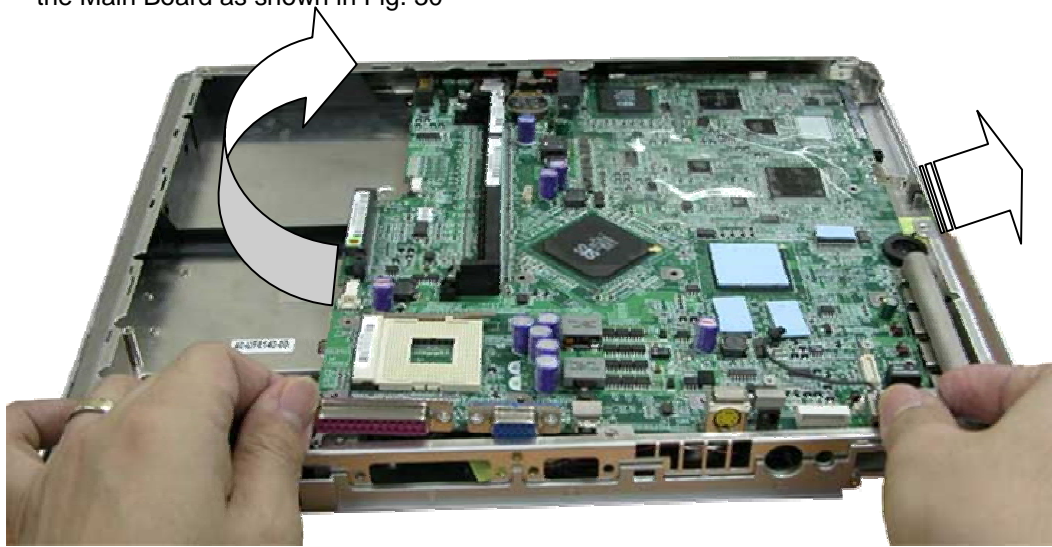

Fig. 30 *Lifting up Main Board*

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Removing the Top Shield

To remove the Top Shield, first remove the Main Board (see *Removing the Main Board*), then perform the following steps:

1. Remove screws on top cover as shown in Fig. 31

Fig. 31 *Top Cover*

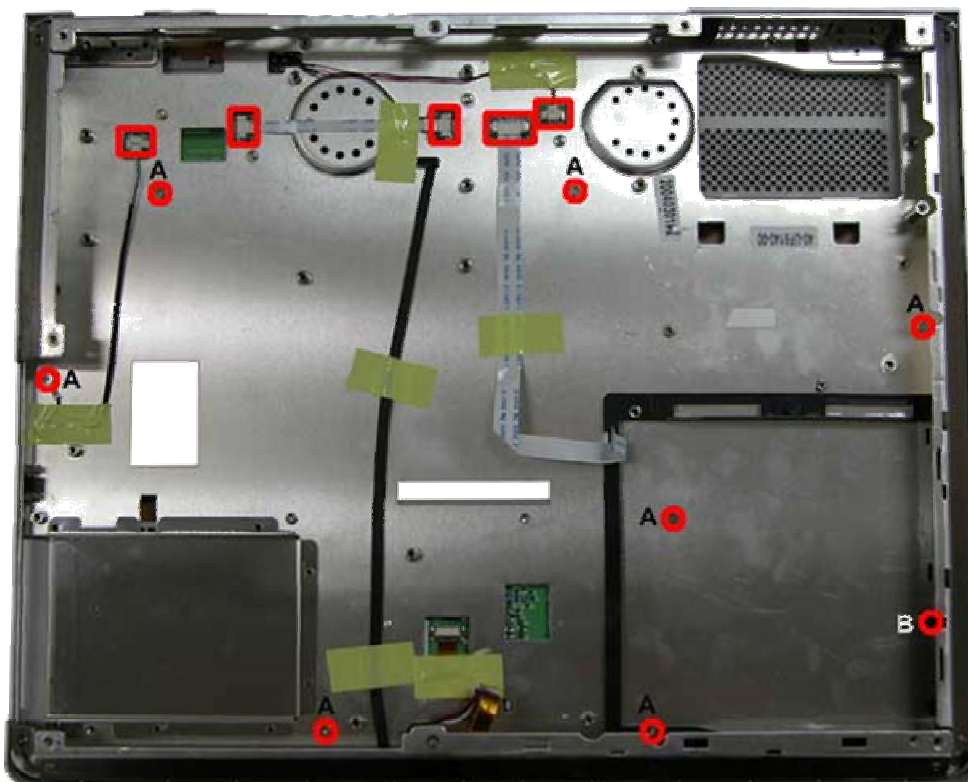2. Unscrew all screws and disconnect all cable on the Top Shield as shown in Fig. 32

A = M2.5 x 5 Silver

B = M2.5x7 Black

Fig. 32 *Top Shield*

3. Carefully separate the Top shield from Top cover.

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4. Release the Switch Board and LED Board on Top Shield by remove four screws encircle in Fig. 33

M2x3.5 Silver

Fig. 33 *Switch Board and LED Board*

Removing the Touch Pad

To remove the touch pad, first remove the top shield (see *Removing the Top Shield*) then perform the following steps:

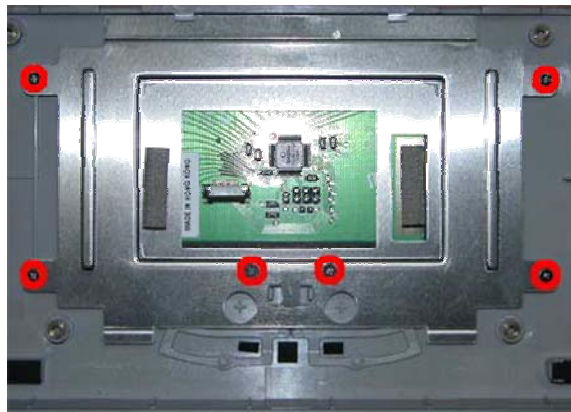1. Unscrew the screws on the Touch Pad Holder as shown in Fig. 34

M2x3 Silver

Fig. 34 *Touch Pad*

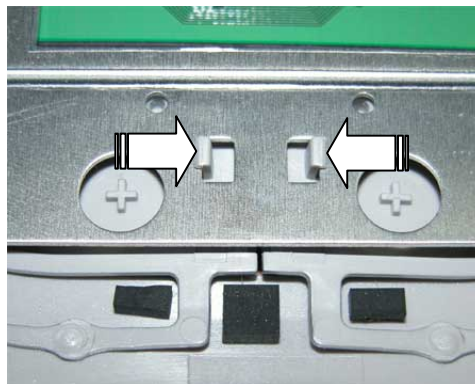2. Press on Touch Pad Button hock to release Touch Pad Holder as shown in Fig. 35

Fig. 35 *Touch Pad Holder*

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Removing the Speaker Assembly

To remove the Speaker Assembly, first remove the Main Board (see *Removing the Main Board*) then perform the following steps:

1. Remove the screws holding Speaker Assembly as shown in Fig. 36

M2x3 Black

Fig. 36   *Speaker Assembly*

2. Carefully remove the Speaker assembly from Top Cover and place it aside.

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Screws

M2.5x7 Black	M2.5x5 Silver	M2x3 Black	M2.5x7 Silver
M2x6 Silver	M2x5 Silver	M2x3.5 Silver	M2x4 Silver
M2x3 Silver	M2.5x10 Silver	M2.5x19.5 Silver	M2.5x9 Silver

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